

### III. REMARKS

Claims 1-20 are pending in this application. Claims 1, 3-5, 7-11 and 13 are rejected under 35 USC 102(b) as allegedly being anticipated by Gonzales et al., US 4,725,885 (“Gonzales”). Claims 2, 6, 12 and 14 are rejected under 35 USC 103(a) as being allegedly unpatentable over Gonzales in view of Mukherjee (2005/0069217). Applicant respectfully traverses the 35 USC 102(b) and 35 USC 103(a) rejections for the reasons provided below.

Applicant does not acquiesce in the correctness of the rejections and reserves the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicant reserves the right to pursue the full scope of the subject matter of the claims in a subsequent patent application that claims priority to the instant application.

#### A. REJECTION OF CLAIMS 1, 3-5, 7-11 and 13 UNDER 35 U.S.C. §102(b)

With regard to the 35 U.S.C. §102(b) rejection over Gonzales et al. (US 4,725,885) (hereinafter referred to as “Gonzales”), Applicant asserts that Gonzales does not teach each and every feature of the claimed invention.

Specifically regarding the Office’s rejections of Claims 1, 7 and 15:

Applicant submits that Gonzales fails to teach each and every feature of claim 1 (and similarly independent claims 7 and 15). Claim 1 recites, *inter alia*, “a scaling system for geometrically scaling the bitonal image, wherein the scaling system reduces contiguous sets of original pixels down to a smaller set of scaled pixels.” Gonzales does not teach these features.

Initially, with respect to the feature “geometrically scaling the bitonal image” and the 35 U.S.C. §102(b) rejection of claims 1, 7 and 15 over Gonzales. Applicant submits Gonzales fails to teach each and every feature of these claims.

In response to Applicant’s previous argument that “the encoding process of Gonzales has no application to a bitonal image”, the Office admits “Gonzales provides a system that operates on a grayscale image”, and states without citation “however the bitonal image is part of grayscale image.” Office Action p.4

Applicant asserts the Office’s factual assertion is not properly based upon common knowledge. Applicant asserts one skilled in the art does not regard “bitonal image” as a subset of “grayscale image” and one skilled in the art does not regard them as synonymous.

It should be noted the Office admits “Gonzales does not provide for a black white image.” Office Action p.6

Applicant claims a process for scaling a bitonal image. As is readily understood in the art, a bitonal image is an image that has only two tones or colors (e.g., black white, blue white, etc.). Conversely, Gonzales provides a system that operates on a grayscale image, which has 256 different shades of gray – “given 8 bits, the gray-level of a pixel can have any of 256 values.” C.1 I.45-46.

The definition of “grayscale image” is distinct from “bitonal image.” “In computing, a grayscale or greyscale digital image is an image in which the value of each pixel is a single sample. Displayed images of this sort are typically composed of shades of gray, varying from black at the weakest intensity to white at the strongest,

though in principle the samples could be displayed as shades of any color, or even coded with various colors for different intensities. Grayscale images are distinct from black-and-white images, which in the context of computer imaging are images with only two colors, black and white; grayscale images have many shades of gray in between.”

<http://encyclopedia.thefreedictionary.com/Grayscale+images>

As the features stated above concerning “bitonal image” do not fit within the scope of Gonzales, Applicant respectfully requests that the Office support the finding with references that show these features.

For these reasons, Applicant submits that claim 1 (and similarly claims 7 and 15) is not anticipated by Gonzales.

Further, with respect to the feature “reduces contiguous sets of original pixels down to a smaller set of scaled pixels”, Gonzales does not teach reducing sets of original pixels down to a smaller set of scaled pixels.

The Office cites to Gonzales C.3 I.44-50 in support of its allegations that Gonzales teaches the feature “reduces contiguous sets of original pixels down to a smaller set of scaled pixels.” In the cited passage Gonzales states “the aggregation of re-mapped values provides a reduction in the binary representation of the neighborhood pixels.” C.3 I.46-48. This “reduction” applies to the “binary representation” and not to the “pixels”.

As Gonzales states “each pixel typically has a graylevel corresponding thereto, ranging between a black value (e.g., 0) and a white value (e.g., 255). That is, given 8 bits, the gray-level of a pixel can have any of 256 values.” C.1 I.43-46. The reduction

referenced in the previous paragraph is to the binary representation of the pixel.

Gonzales does not teach a reduction in number of pixels.

Gonzales discloses two pixel(s) of interest with respect to the Gonzales invention: “a ‘subject’ pixel” and “neighboring pixels” (“in close proximity to the subject pixel”). C.3 I.18-20. Gonzales does not teach any reduction of the original set of “subject” or “neighboring” pixels to a smaller set of “subject” or “neighboring” pixels. There simply is no support for this teaching in Gonzales.

Applicant provides a system in which, e.g., two pixels are scaled down to a single pixel in order to scale, i.e., reduce the pixel size of the image. In Gonzales, the same number of pixels that are inputted are also outputted – there is no reduction in the number of pixels in the image. Gonzales does not teach the presently claimed application in which pixels are actually eliminated altogether.

For these reasons, Applicant submits that claim 1 (and similarly claims 7 and 15) is not anticipated by Gonzales.

With respect to the dependent claims, Applicant herein incorporates the arguments presented above with respect to the independent claims from which the claims depend. Furthermore, Applicant submits that all dependant claims are allowable based on their own distinct features. Since the cited art does not teach each and every feature of the claimed invention, Applicant respectfully requests withdrawal of this rejection.

#### IV. CONCLUSION

In addition to the above arguments, Applicant submits that each of the pending claims is patentable for one or more additional unique features. To this extent, Applicant does not acquiesce to the Office's interpretation of the claimed subject matter or the references used in rejecting the claimed subject matter. Additionally, Applicant does not acquiesce to the Office's combinations and modifications of the various references or the motives cited for such combinations and modifications. These features and the appropriateness of the Office's combinations and modifications have not been separately addressed herein for brevity. However, Applicant reserves the right to present such arguments in a later response should one be necessary.

In light of the above, Applicant respectfully submits that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the number listed below.

Respectfully submitted,

/David E. Rook/

Date: April 16, 2008

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